OSSMA
Software Quality Assurance
Data Management Plan
(DMP)

November, 2005

DOCUMENT CONTROL INFORMATION

This document is controlled by the Office of Systems Safety and Mission Assurance (OSSMA). Changes require the approval of the Assurance Management Office (AMO) Project Manager. Submit proposed changes to the AMO Lead Software Quality Engineer.

OSSMA
Software Quality Assurance
Data Management Plan (DMP)

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DOCUMENT CHANGE RECORD

Note: The Document Change Record will be generated per the Code 300 Procedures and Guidelines (PG) for Software Quality Assurance Configuration Management.

<u>CHANGE RECORD PAGE</u>

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1.0   INTRODUCTION

1.1   PURPOSE

The Software Quality Assurance (SQA) Data Management Plan (DMP) presents a high-level plan for the collection and storage of the various types of software quality data associated with the Office of Systems Safety and Mission Assurance (OSSMA) SQA activities. The plan also reflects the data owner responsible for the collection and maintenance for the particular data records.

1.2   SCOPE

This DMP is to be used by the OSSMA SQA personnel and the supporting contractor Software Quality Engineers (SQEs). This procedure details the mechanisms by which documentation shall be identified, released, maintained, dispositioned, archived, and stored.

1.3   OBJECTIVES

The basic objectives of the OSSMA SQA Data Management Plan are as follows:

- Implement and maintain a Data Management system for managing both general and proprietary documents in electronic or hardcopy format

- Identify, collect, manage, and archive internal and external data

- Establish and maintain status records of SQA data management activities

- Provide direct data management support to the SQA organization

1.4   PLAN MAINTENANCE

The Data Management Plan will be reviewed and revised as necessary to reflect changes in Data Management requirements and procedures.

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2.0   RESPONSIBILITIES

2.1   DATA MANAGEMENT

The OSSMA SQA organization shall ensure that all data items are controlled to meet the requirements of the GSFC Quality Management System (QMS). The AMO Lead Software Quality Engineering (LSQE) shall be designated to ensure the integrity of the SQA organization's data as the acting Document Manager. The LSQE is responsible for oversight and coordination of the document control activities. The document management activities shall involve, but not be limited to the following:

- Maintenance of the DMP
- Accessibility to the data repositories (i.e., Software Quality Engineering Repository Database (SQERD), Configuration Control Management System (CCMS), SQE Folders, hardcopy files, etc.)
- Authorization of SQA data distribution
- Reporting on the status of the SQA data management

The AMO Document Manager shall also act as the CCB Chairman.

3.0   DATA MANAGEMENT INDEX

Section 3.1 contains a master list of the data categories and data items that will be developed and maintained. The table also describes who is responsible for the data, when it is collected, the data retention period, and where it is archived.

3.1   INDEX TABLE

Data Category	Document Type (Notes)	Owner	Stored Where? (Specify folder/location in SQA repository if applicable)	Collected When?	Data Retention Period
Acquisition Records					
Service Orders/SO Supplemental forms/SO History logs/SQA Task Descriptions		Code 300 Management	VOSSMA	Bi-annual	N/A
SOW/Budget Projections		AMO Chief	WISP System	Yearly	N/A
Work Authorization Form		SQEs	SQE Folder	Bi-annual	N/A
Project-related email		SQEs	SQE Desktop	As determined necessary	1 yr
Waiver Requests and Waivers		Lead SQE	CCMS	As submitted	1 yr

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SQA Reports					
SQ Program Risks	Risks identified within the OSSMA Project	SQA Lead	Shared Server	As submitted	1 yr
Project Risks	Formal Risks Submitted/Tracked	SQEs	Project Risk Management (RM) System	Monthly updates	1 yr
SQ Monthly Report	Power Point Summary of all SQ Activities	Lead SQE	Shared Server	Monthly updates	5 yrs
Meeting - Minutes	CCB's	Document Manager	Shared Server	As CCB meeting is held	5 yrs
Meeting - Minutes	Minutes and Actions of SQA Team	SQA Lead	Shared Server	Inputs as meetings occur	5 yrs
Meeting - Minutes	Meeting with OSSMA Management	SQA Lead	Shared Server	Inputs as meetings occur	5 yrs
Weekly SQ Status	Weekly status to Project SAM	SQEs	SQE Folder	Weekly	5 yrs
QTR SQ Status	Quarterly status to Project SAM	SQEs	SQE Folder	Every 3 months	5 yrs
Training Material:					
SQ training records		SQEs	Contractor Training Folder	Updated at time of training	5 yrs
SQE Training Log		SQEs	SQE Folder	Updated at time of training	5 yrs
Metrics		SQEs	SQE Folder	Monthly	5 yrs
Configuration Change Requests (CCR's)		CMO	CCMS	As submitted	5 yrs
Discrepancy Requests (DR's)		SQEs	SQERD	Initiation + tracked to closure	5 yrs
QA Artifacts					
SQE Assessment Reports	Reports from process and product assessments	SQEs	SQERD	As conducted	5 yrs
SQ Checklists	Standard checklists for all process and product assessments	SQEs	SQERD	Upon CCB approval	5 yrs
SQAP	Per project	SQEs	SQE Folder	Upon completion	5 yrs
Stakeholder Table	Per project	SQEs	SQE Folder	Upon completion	5 yrs
PPQA Audit Report	External Audit of SQEs to PPQA	SQA Lead	Shared Server	As conducted	5 yrs
IV&V Reports	Typically distributed from IV&V to the projects on a monthly basis	SQEs	SQE Folder	When provided	1 yr
GSFC NCR		SQEs	GPRS	When provided	5 yrs
CMMI	Artifacts/PIIDs/working shared files	Lead SQE	Shared Server	As updated	5 yrs
SQE Schedule	Schedule/Notes and inputs to schedule in the form of redlines/emails	SQEs	SQE Folder	Updated Monthly	1 yr
Document Records	Draft and released versions of deliverable documents	CMO	CCMS	As generated	N/A

SQERD Web site address: http://sqerd.gsfc.nasa.gov

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3.2   CENTRALIZED CONFIGURATION MANAGEMENT SYSTEM

Non-baseline, reference, deliverable documents, and all updates are maintained in this database. The database will encompass all documents acquired by the library.

All SQEs have access to the library database through the GDMS website. The library database enables personnel to locate and retrieve document information. However, only the Document Manager has the capability to edit and delete entries in the system.

3.3   PROPRIETARY DATA

Some documentation may contain information of a proprietary and/or sensitive nature. The document sponsor is responsible for informing the Document Manager of any restrictions that may apply to distribution. All outside requests for information (not in the public domain) should be referred to the Freedom of Information Act.

3.4   PLACING DOCUMENTS IN THE LIBRARY

Each document placed in the library, regardless of media type, will be considered the library's master copy.

4.0 DOCUMENT CONTROL

4.1 CCB Change Control – All documents considered for change will be submitted to the CCB in accordance with the Code 303 CCB Charter.

4.2 Document Control – The types of documents that will be controlled by the Code 303 CCB are defined in the Code 300 Software Quality Assurance Configuration Management PG.

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APPENDIX A ABBREVIATIONS AND ACRONYMS

ABBREVIATION/ ACRONYM	DEFINITION
AMO	Assurance Management Office
CCB	Configuration Control Board
CCMS	Centralized Configuration Management System
CM	Configuration Management
DM	Document Management
DMP	Data Management Plan
GPRS	Goddard Problem Reporting System
GSFC	Goddard Space Flight Center
ID	Identification
IV&V	Independent Verification & Validation
LSQE	Lead Software Quality Engineer
NASA	National Aeronautics and Space Administration
MSR	Monthly Status Report
OSSMA	Office Of Systems Safety & Mission Assurance
QTR	Quarterly
PPQA	Process Product & Quality Assurance
SAM	Systems Assurance Manager
SQ	Software Quality
SQA	Software Quality Assurance
SQE	Software Quality Engineers
SQERD	Software Quality Engineering Repository Database
VOSSMA	Virtual Office of Systems Safety and Mission Assurance
WISP	Workforce Integrated Strategic Plan